Generational Projections of the California Population By Nativity and Year of Immigrant Arrival

(Selected Chapters Only)

PopDynamics
Research Group

USC Price
Sol Price School of Public Policy

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Dowell Myers

April 2012
About the Series on California Demographic Futures

The first projection report in the series on California Demographic Futures was issued in 2001, followed by a second in 2005. Additional generational projections that follow this general model have been prepared for the United States and major subareas of California. This specialized program of research is conducted through the USC Population Dynamics Research Group. A number of reports and special studies have also been carried out in preparation for the 2012 series of projections and are available on the project website: http://www.usc.edu/schools/price/futures

About the Authors

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Acknowledgments

The research underlying this report on the California population projections was conducted over two years, with sponsorship by the Haynes Foundation, the MacArthur Foundation, First 5 LA, and the USC Price School of Public Policy. The authors gratefully acknowledge this support. Outstanding research assistance was provided by Michelle Decker, with contributions also from Chris Contreras, Anna Jacobsen and Ying Mao.
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Executive Summary

This report provides uniquely detailed projections of California’s population numbers and characteristics. In addition to the standard content of age, gender and race or Hispanic origin, the Pitkin-Myers/USC projections describe foreign-born and California-born components. The new projections also provide detail on immigrant generations and the length of residence in the U.S. for the first generation. Projections of the total population are carried through 2050, while the detailed characteristics are reported through 2030.

These projections are the third edition in the California Demographic Futures series carried out through the Population Dynamics Research Group in the Sol Price School of Public Policy at the University of Southern California. A substantial track record has been accumulated, most notably by the 2001 edition that projected the substantial leveling off of foreign-born growth that now has occurred.

The following major findings emerge from the 2012 edition of these Generational Projections.

1. Less Population Growth. Much slower population growth is foreseen in these projections than was indicated by the official state population projections issued in 2007 by the state Department of Finance (DOF). The population level previously expected for 2020 is not reached until 2028 (44.1 million). And the 50-million population mark previously anticipated for January 2032 is now expected in January 2046, fully 14 years later. (Once the DOF projections are revised to take account of the 2010 census and recent trends, they also will likely show slower growth.)

2. A Return to Normal Growth. In fact, the anticipated growth in each of the coming decades is very similar to what was recorded in 4 of the last 5 census decades, the lone exception being the 1980s’ growth of 6.1 million added persons. See EXHIBIT A.

Along with the slower growth have come several important changes in population characteristics. The largest projected shifts involve the aging of the population and residents’ place of birth.

3. A Soaring Senior Ratio. Population growth among seniors ages 65 and older is projected to quadruple in the coming 20 years (4.2 million, amounting to 57% of the total growth in 20 years) compared to the gains in the last 20 years (1.1 million, accounting for only

<table>
<thead>
<tr>
<th>Exhibit A</th>
<th>California Population</th>
<th>Population Growth Each Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Census</td>
<td>DOF-07</td>
</tr>
<tr>
<td>1950</td>
<td>10,586,223</td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>15,717,204</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>19,971,069</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>23,667,764</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>29,760,021</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>33,871,648</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>37,253,956</td>
<td>39,135,676</td>
</tr>
<tr>
<td>2020</td>
<td>44,135,923</td>
<td>40,820,201</td>
</tr>
<tr>
<td>2030</td>
<td>49,240,891</td>
<td>44,756,304</td>
</tr>
<tr>
<td>2040</td>
<td>54,266,115</td>
<td>48,316,571</td>
</tr>
<tr>
<td>2050</td>
<td>59,507,876</td>
<td>51,170,000</td>
</tr>
</tbody>
</table>

Source: Census, California Department of Finance, Pitkin-Myers CDF 2012
15% of total growth). Driven by aging of the large baby boom generation, the ratio of seniors ages 65 and older to prime working ages (25 to 64), is projected to soar to 36.0 seniors per 100 working age in 2030, compared to 21.6 in 2010, a two-thirds increase in just 20 years. The impact of the increase is amplified because it follows four decades of no change in the senior ratio.

4. Faltering Growth in Children. An opposite trend is occurring among children. Whereas children under age 18 were rapidly increasing in number between 1990 and 2010 (+ 1.6 million), in the coming 20 years (2010 to 2030) the growth of children virtually halts (-31 thousand). Given the continued growth of the rest of the population, the share made up by children is projected to slowly decline, from 24.9% in 2010 to 20.7% in 2030.

5. Foreign-Born Share Holding Constant. The generational projections contain rich detail on nativity or place of birth not found in other population projections. The total foreign-born share of the state population has leveled off at 27% after decades of increase. Projected foreign-born shares of the total population are 27.0% in 2020 and 27.0% in 2030. (The foreign-born share stood at 8.6% in 1970, 15.1% in 1980, 21.7% in 1990, 26.2% in 2000, and 27.2% in 2010).

6. Longer Immigrant Settlement. The growing number of foreign-born residents in the California population includes cumulative increases in the share of long-settled immigrants. As the number of foreign born who are newcomers is declining, the share of the foreign-born who are long settled (entered the U.S. 20 or more years earlier) is increasing. It is projected to rise to 62.2% of all foreign-born in 2030, compared to 45.7% in 2010 and 22.0% in 1990. Conversely, the share of foreign-born that arrived in the U.S. less than 10 years earlier is projected to fall from 27.8% in 2010 to 21.3% in 2030 compared to 50.4% in 1990.

7. Growing Majority California-Born. The 2012 edition of California Demographic Futures goes beyond previous editions to describe new detail on the number of residents who are native Californians, as opposed to residents born in other states or abroad. These homegrown sons and daughters form a rapidly growing majority of California’s population. The native Californian (or homegrown) share of the state population became a majority of the population in the last decade, reaching 53.9% in 2010, and will continue to slowly rise. The homegrown share is far higher among children and young adults than older adults. In 2010, over 90% of children under 10 already were homegrown, native Californians, but major increases in homegrown status are now expected among adults ages 25 to 34 (62.1% in 2030 compared to 50.6% in 2010) and for adults ages 35 to 44 (57.2% in 2030 compared to 38.5% in 2010).

8. Changing Sources of Future Workforce. Growth in California’s working age population is projected to change dramatically in the coming 20 years compared to the preceding 20 years. Whereas the main working age population (ages 25 to 64) increased 4.2 million from 1990 to 2010, it is expected to grow moderately less (3.3 million) from 2010 to 2030. Virtually all the projected growth is comprised of native-born who are the children of immigrants (98%). This contrasts to the earlier growth period, when immigrants themselves accounted for 80% of the growth. In fact, in the coming period, 112% of the 3.3 million working age increase is projected to be from California-born residents (a 3.7 million increase that exceeds losses in other groups).

9. A New Recognition of Training Ages. Youths and young adults are technically able to be working, but those who are ages 18 to 24 more often are enrolled in extended education or training programs, or they may be serving in part-time or apprentice positions that are preparing them to join the main workforce. They are the workforce of the future. The California born already dominated growth in this age group in the last 20 years and are projected to continue to do so in the coming period as well. Latinos predominate among the homegrown population in training ages, but all racial groups contribute. Those raised in California are, of course, educated at the expense of California taxpayers and likely to remain in the state to the benefit of California businesses and other employers. And they will become future taxpayers themselves, as well as possible home buyers to strengthen the housing market.
A Changing Age Structure

Age is the central dimension of demography, because change happens a year at a time, and all of the population members advance in predictable ways. The probabilities of a great many behaviors and events vary systematically across the different ages, making age a uniquely useful and widely used predictor. The age structure, or distribution of the population across age groups, differs from decade to decade because of aging and because of the legacy of past events. In this section we summarize the changes in age structure that have occurred since 1990 and that are projected to occur through 2030. That is a capstone year for aging in California, because it marks the point at which the last members of the baby boom generation have crossed age 65 and become eligible for Medicare and many pension benefits.

A tremendous amount of change will be compressed into just the coming 2 decades, and the clearest understanding of a changing California population can be gained through a contrast of 2030 with 2010 and 1990. This contrast will be examined from different perspectives, beginning with the processes that generate those differences.

The Legacy of Past Events

The giant baby boom generation, born 1946 to 1964, has rippled upward through the age structure for decades. Once born, a cohort can increase in numbers only through migration from another locale. Decrease occurs through out-migration and eventual death. California’s baby boom cohort was augmented during the boom years of the 1980s, when many people then in their 20s and 30s, the ages with highest migration probabilities, were attracted to jobs and lifestyles in the Golden State. Many of these new Californians came from other states; others from foreign countries, as to be discussed in the section on immigration. Rates of migration slow substantially after age 40, and so California’s population of boomers has been relatively stable since.

Later, younger cohorts, born in the late 1960s and 1970s, are smaller, and fewer of them have moved to California because the employment attractions and housing costs have not been as welcoming in recent decades. At times, especially during the 1990s, the economy in California was so much worse than in other parts of the nation that many young adults moved to other states. The combined effects of smaller cohort sizes and out-migration are still visible today in the current slightly depressed number of middle-aged residents relative to older and younger cohorts.

California experienced its own baby boom from 1984 to 1996, when many of the young adults attracted to the state had their own children. These years also coincided with the baby boom echo, the children born of the baby boomers. Annual births soared 37% between 1984 and 1990, then fell 12% by 1996 before leveling again. Those children are now aged 17 to 27 in 2012, with the largest cohort
turning 22 this year. This new generation of young adults is larger than their predecessors, but they leave behind them a decline in school age children in their wake. Given the current declines of another 10% in births statewide during the Great Recession, the ranks of children are being further depressed, and for the future, young adults. Nonetheless, the decline is expected to be short-lived, with a small rebound in fertility anticipated after full recovery from the Great Recession. Overall, for the long-term the outlook is for relative stability with very little net change.

**Age Structure in Each Decade**

Here we offer a snapshot of the age distribution in each decade. As shown in Exhibit 3.1, in 1990, an exceptionally large share of California's population was ages 25 to 34 (19.3%). This share fell to a low point in 2010 (14.4%) before a brief revival in 2020 and a projected new decline in 2030 (14.0%). A more prolonged downward shift is found among children, with the share of the population that is under age 10 falling from 15.5% in 1990 to 13.5% in 2010 and projected to 11.4% in 2030.

What has been growing is the share in middle age, as the baby boomers have progressed through the age groups. The share ages 35 to 44 peaked in 2000, the share ages 45 to 54 peaked in 2010, and the share ages 55 to 64 will peak in 2020. These peaks reflect the aging of the cohort that was age 25 to 34 in 1990, representing the younger half of the baby boomers. Ultimately, the cohorts passing through middle age arrive in elder years, with the baby boom cohorts beginning to arrive there after 2010. Our large cohort from 1990 makes its arrival in 2030, at which time the share of the population that is 65 and older is projected to reach 18.5%, well above the 11.4% of today. This highly significant change is discussed below and in later sections as well.

**Impacts of Changing Numbers at Different Ages**

As a measure of direct impacts on public services and private businesses, changes in the absolute numbers of residents each period are more important than their shares of the total. People of different ages have very different needs and demands, and when an age group is growing its influence has an expansive effect on those activities it most engages in, while in the case of shrinking numbers, the effects are opposite. An especially important impact is when the effects reverse from one period to another. Such a reversal can create wrenching changes as suppliers in the private and public sectors alike adjust to shifts in established patterns of demand by consumers and clients.

California faces such a period of wrenching change today. This can be seen by comparing the growth of the last 20 years by age group with the growth projected for the coming 20 years, as shown in Exhibit 3.2. Substantial reversals in growth patterns lie ahead.

**Exhibit 3.1: Trends in Share of Population**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>15.5</td>
<td>15.4</td>
<td>13.5</td>
<td>12.1</td>
<td>11.4</td>
</tr>
<tr>
<td>10-17</td>
<td>10.5</td>
<td>11.9</td>
<td>11.5</td>
<td>10.5</td>
<td>9.5</td>
</tr>
<tr>
<td>18-24</td>
<td>11.2</td>
<td>9.9</td>
<td>10.6</td>
<td>9.6</td>
<td>9.1</td>
</tr>
<tr>
<td>25-34</td>
<td>19.3</td>
<td>15.4</td>
<td>14.4</td>
<td>15.2</td>
<td>14.0</td>
</tr>
<tr>
<td>35-44</td>
<td>15.6</td>
<td>16.2</td>
<td>13.8</td>
<td>13.4</td>
<td>14.4</td>
</tr>
<tr>
<td>45-54</td>
<td>9.9</td>
<td>12.8</td>
<td>14.0</td>
<td>12.4</td>
<td>12.2</td>
</tr>
<tr>
<td>55-64</td>
<td>7.5</td>
<td>7.7</td>
<td>10.9</td>
<td>12.0</td>
<td>10.9</td>
</tr>
<tr>
<td>65-74</td>
<td>6.3</td>
<td>5.6</td>
<td>6.1</td>
<td>8.8</td>
<td>9.9</td>
</tr>
<tr>
<td>75+</td>
<td>4.2</td>
<td>5.0</td>
<td>5.3</td>
<td>6.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Census Bureau IPUMS, Pitkin Myers CDF 2012
as large cohorts, led by the boomers, transition to new stages of life.

Among young people under age 25, California experienced more than 2 million population growth from 1990 to 2010. However, in the coming 20 years, we project virtually zero growth in any part of this age range. (These differences include, of course, the combined effects of past births and migration.)

Among the crucial group of young adults ages 25 to 34, in the last 20 years, California lost 367 thousand people. In contrast, in the coming two decades, the state is projected to gain 889 thousand, an important revitalization of the age group that supplies new workers, supports entry-level housing demand, and starts families.

Similarly, at ages 35 to 44, growth is projected to increase from only 492 thousand in the last 20 years to 1.3 million in the coming 20 years. This can be expected to reinvigorate the labor supply and add to demand for housing.

Conversely, in late middle age, from 45 to 64, growth in the last 20 years amounted to an increase of 4.1 million, while in the coming 20 years growth is reduced to only one-quarter as much (1.0 million). This is the age range of maximum earnings and largest house purchases, but its impact as an economic driver will be much less robust in the future.

Finally, we arrive at the elderly ages, where 20-year growth of the young-old will expand from 424 thousand in the past 20 years to 2.1 million in the coming 20 years, and all elderly combined will increase their growth from 1.1 million to 4.0 million, a nearly four-fold growth at elderly ages.

A New Era of Aging

The portraits of change that compare aging in the last 20 years to the next 20 years could not be more different from one another. In the period just closed we experienced growth of the middle aged and children. In the period to come, growth is projected among the senior population and for young adults, accompanied by a slowing among the middle aged and children.

Indeed, the state’s future prosperity and vitality will be greatly shaped by these growing segments of young adults and seniors. What will they look like? In subsequent sections we address the immigration and second-generation trends in California, as well as the new, growing majority of homegrown, native Californians.

In sum, the magnitude of the coming generational transition can be seen from a simple numerical calculation, one that contrasts the number of elders, ages 65 and older, with prime working age residents, assumed to be ages 25 to 64. Even though some may

Exhibit 3.2: Growth by age group, 1990 to 2010 and 2010 to 2030

Source: Census Bureau IPUMS, Pitkin Myers CDF 2012
be working before or after these ages, this “senior ratio” captures the main relationship between the entitlement and retiree ages and the size of the age groups that are their principal supporters.\(^5\)

Although the rising number of seniors is significant, of key importance for our society and economy is the ratio between their number and the working age people who will support them in different ways. As this ratio slowly rises, it will gradually tip the scales toward more emphasis on behaviors that the elderly are likely to engage in—not simply retirement but consumption of public entitlements, reduced taxpaying, and increased home selling. After four decades of remaining almost flat at the same constant level, the ratio of seniors is quite suddenly beginning to escalate (Exhibit 3.3). In California, what had been 20 or 21 seniors per 100 working-age residents is projected to climb to 28 in 2020 and then to 36 in 2030. A two-thirds increase in the ratio of seniors to working age Californians seems certain to impose enormous pressure on state and local governments and the taxpayers. A lot is riding on the shoulders of the new generation of young adults.
Changes in California’s Working Age Population

One of the major implications of the population projections is with regard to the future workforce of California. How much will the working age population increase and what will be the composition of this growth? This question has great import for the economic future of California. Here we address two key age ranges: “working age” residents are in the prime ages of 25 to 64; “training age” residents are ages 18 to 24 and preparing to enter the prime working age.

The number and characteristics of working age population has major significance, because this group is the source of the labor force and the provider of replacement workers for the retiring older generation. The prime working age population provides the labor force that drives the economy. This group contains the most productive workers and residents in their highest earning years. These are the principal taxpayers, the biggest consumers, and the bulk of the homebuyers. Changes in the working age population thus have broad implications for California’s future.

Separately, we will focus also on the number and characteristics of youths and young adults, ages 18 to 24. This group is often termed working age, but as will be explained, they are more often in training or apprenticeships and entry-level positions: they are preparing to join the workforce. The quality of their preparation is subject to public policy intervention and has great importance because these youths and young adults are at the optimum age to be trained to become productive members of the labor force. The number and characteristics of these “training age” residents of California thus deserve special attention.

In this section, the working age population is compared between 1990 and 2010, and then with the 2030 projection. The main focus is on the growth in the number of working age residents, comparing the coming 20 years of growth to the last 20 years. This growth can be partitioned by its origins, whether foreign-born or native-born, with the latter divided between the children of immigrants (second generation) or those of the third and higher generation. Alternatively, growth in working age residents also can be partitioned by place of birth, dividing the native-born between those born in California or elsewhere in the U.S. Consistent with findings reported in Section 5, above, we find here that the homegrown population is by far the greatest sector of future growth in the working age population. Closer examination is then given to changes in the the race and ethnicity of these homegrown California working age residents.

Following that working age analysis, we then conduct similar investigation of the training age residents. These young recruits are truly the cutting edge of California’s emerging future.
When is Working Age or Training Age?

There is frequent ambiguity about what constitutes “working age,” and so the definitions employed here deserve explanation. The term working age is often used to convey the age range within which people are typically employed in the labor force. Virtually all definitions define the upper limit of working age as 64, even though a sizable share of people work at least part-time beyond that age. Given that Medicare and other benefits often start at age 65, or full Social Security at 67, the conventional upper limit of 64 has general usefulness. Seniors of ages 65 and older are supported in their entitlements by working age residents who are the principal taxpayers.

There is less agreement about the lower limit of working age. The Bureau of Labor Statistics defines it as starting at 16. However, it is more common to define working age as the Census Bureau does as beginning at 18. This convention may be based on the assumption that people start working after completing high school. Or it may simply be based on the notion that teenagers are able-bodied enough to help with farm labor or other manual tasks. Whether or not young people have the capability of working, it may not be in the public interest to rely on their employment to support other members of society.

In the contemporary economy young people ages 18 to 24 require extended training to perform useful roles. Many are enrolled in college or other training programs, and even more should be so. When young people are employed, it is often as interns or apprentices, in entry-level trainee positions, or in part-time capacities. For these reasons, it is useful to distinguish these young adults, ages 18 to 24, as being of “training age” rather than of prime working age. Because they are about to join the prime-age workforce, those of training age have special importance. This group of young adults deserves attention as a separate category for close attention.

Generational Make-Up of the Working Age

The working age population grew by 4.2 million from 1990 to 2010, and is projected to grow only moderately less (3.3 million) in the coming 20 years. There have already been dramatic changes in the generational origins of the working age population.

In the past the foreign-born share was increasing, but in the future increases are projected in the second generation. From 1990 to 2010 the foreign-born share rose from 26.1% to 37.6% of the working age population (Exhibit 6.1). However, a decline is projected in this share through 2030, falling to 33.5%.
Instead in the future the share that is second generation is projected to increase, rising from 9.7% in 2010 to 22.2% of the working age group in 2030.

In the past, the largest share of the working age population was native-born of third or higher generation residence in the U.S. However, this share declined from 66.9% in 1990 to barely half (52.7%) in 2010 and is projected to decline further to 44.3% in 2030.

The generations’ changing shares of the working age group in different decades result from sharply different contributions to growth in different periods. In the last 20 years, the foreign-born accounted for almost 80.0% of the growth in working age residents in California (Exhibit 6.1). However, in the coming 20 years, the foreign-born share of growth is projected to be only 9% of total growth. Instead of a gain of 3.3 million working age in the last 20 years, the next 20 years are expected to see only an increase of only 290 thousand in foreign-born of working age.

The native-born, third or higher generation contributed very little growth in the last 20 years and is projected to see a small loss in the working ages in the coming 20 years.

In their stead, the native-born, second generation, i.e., the children of immigrants, are projected to become the new, major source of growth in working age Californians. This new generation can be expected to add 3.2 million members to the working age population and account for virtually all of the growth (98%) in the working age population between 2010 and 2030.

**Place-of-Birth Origins of the Working Age**

Further attention is due the distinction within the working age residents who are native-born, separating those who are native Californians from those born in other parts of the U.S.

California-born residents are distinctive and worthy of separate attention, as in Section 5. The Californian-born are more rooted in the state, with outmigration that is two-thirds lower, than are native-born from other states. They are anchored by family and networks of school friends, and their entire education has been accomplished in this state (with rare exceptions). The California-born are truly a homegrown resource that will support the future economy of the state.

The California-born already were the largest component of the working age population in 2010 (41.2%)

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**Exhibit 6.2: California Origins of the Working Age Population and its Growth**

<table>
<thead>
<tr>
<th>Working Age 25 to 64</th>
<th>Number (thousands)</th>
<th>Share of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990</td>
<td>2010</td>
</tr>
<tr>
<td>California-Born</td>
<td>5,502</td>
<td>8,148</td>
</tr>
<tr>
<td>Other US Born</td>
<td>5,996</td>
<td>4,206</td>
</tr>
<tr>
<td>Foreign-Born</td>
<td>4,059</td>
<td>7,433</td>
</tr>
<tr>
<td>Total Working Age</td>
<td>15,557</td>
<td>19,786</td>
</tr>
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</table>

**Growth 1990 to 2010**

<table>
<thead>
<tr>
<th>Number (thousands)</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>California-Born</td>
<td>2,646</td>
</tr>
<tr>
<td>Other US Born</td>
<td>-1,791</td>
</tr>
<tr>
<td>Foreign-Born</td>
<td>3,374</td>
</tr>
<tr>
<td>Total Working Age</td>
<td>4,230</td>
</tr>
</tbody>
</table>

**Growth 2010 to 2030**

<table>
<thead>
<tr>
<th>Number (thousands)</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>California-Born</td>
<td>3,653</td>
</tr>
<tr>
<td>Other US Born</td>
<td>-681</td>
</tr>
<tr>
<td>Foreign-Born</td>
<td>289</td>
</tr>
<tr>
<td>Total Working Age</td>
<td>3,260</td>
</tr>
</tbody>
</table>

Source: Census Bureau, Projections, Pitkin Myers CDF 2012
and this number is projected to increase to a majority (51.2%) in 2030 (Exhibit 6.2). Meanwhile, those from other U.S. states are in decline: their projected share of 15.3% in 2030 will be less than half what it was in 1990.

The California-born already accounted for a large share of the growth in the working age group in the last 20 years (63%). The 2.6 million increase more than offset the 1.8 million decrease among native-born from other states. However, in the coming 20 years the California-born are projected to assume a pre-eminent role. Their 3.7 million increase amounts to 112% of all the growth among the working age, because it offsets both the continued decline in working age residents born in other states and the very slow growth of the foreign-born. The unavoidable implication of these projections is that future growth of California’s labor force will increasingly rely on our homegrown residents.

Special Attention to the Training Age Residents

The projections for the workers in training ages, 18 to 24, underscore these findings. In fact, the generational changes occur earliest for the younger segment, and we see in Exhibit 6.3 that the foreign-born share already declined by 2010 to 20.0%, barely half the foreign born share of all working ages. Over the coming 20 years the foreign-born share is projected to fall to only 15.6% of the training age group. Meanwhile, the second generation make up 29.2% of the training age population, three times that of all working age, and the share is projected to rise to 36.3% in 2030.

Simply stated, the second generation accounted for all the growth in the training age group over the last 20 years and is projected to do so over the next 20 years. In fact, in the coming period, the other segments are expected to decline, meaning that without the growth of the second generation (by 330 thousand), the total training age population would shrink. As it is, the growth of the total training age population is projected to subside from 653 thousand in the last 20 years to only 128 thousand projected in the coming 20 years.

This underscores how vital the second generation will be both as a source of labor force and as the major source for replenishing the work force that would otherwise be depleted through increasing numbers of retirements.

California-born status also has already increased sharply among young training age residents. We see in Exhibit 6.4 that the California-born share was already 50.1% in 1990 and climbed to 69.2% by 2010,
projected that only 23.5% of the training age population will be White, while that will be true of 36.1% of those in working age group. In contrast the major group growing is Latino. By 2030, it is projected that 58.1% of the training age group will be Latino, as will be 46.0% of the working ages.

Overall, these findings indicate that California’s workforce and economy will be increasingly dependent on Latinos. With Latinos’ large share of the training age population in particular, it will likely prove necessary to include Latinos as a central part of any plan to facilitate job training or to promote educational opportunity.

Conclusion

Workforce changes projected for the coming 20 years look very different from those seen in the last 20 years. Where the growth has been among the foreign-born, now growth is almost all among native Californians, many but not all of whom are the children of immigrants. Many are Latino, but not all. In view of the soaring senior ratio discussed above in Section 3, the future will require contributions from productive, well-trained young workers of every sort.
Exhibit 6.5 California-Born Racial and Hispanic Composition, Working & Training Ages, 2010 and 2030

Source: Pitkin-Myers CDF 12 Generational Perspectives
Previous sections of this report have focused on specific population segments, children, working age, seniors, the foreign born, and those born in California. This section provides an overview of how the different segments fit together, a snapshot of the 2010 population “from 30,000 feet.” It then compares this snapshot with one of the situation two decades earlier, in 1990, and one projected ahead for 2030. Together, these snapshots provide a time-sequence graphic summary of California’s coming generational transition.

They show how three large demographic waves, the products of past episodes of rapid growth, shape the projections of California’s population for the coming decades: native-born baby boomers driving the coming increase in retirement-age seniors relative to the population in prime working age, immigrants who came in the surge in the 1980s and 1990s now dominating a more settled and aging foreign-born population, and the large cohort of children born in the 1990s and early 2000s forming the basis for a new and rising homegrown majority in the state.

2010

These composite snapshots of the generations take the form of “age-nativity pyramids” for California, starting with 2010 (middle graph in Exhibit 7.1). Modeled after the widely used age-sex population pyramid, the age-nativity pyramid shows five-year age segments, from the youngest at the bottom to the oldest at the top. The central vertical line divides the population by nativity, with the foreign-born to the left and native-born on the right. Within the foreign-born, the shading denotes decade of arrival, ranging from the most recent in the lightest tone to the earliest (and now longest resident) in the darkest. Among the native-born, those born in California (shown in light green) are distinguished from natives of other states.

In this figure, the California-boom generation (born in the 1990s and early 2000s) can be clearly seen in the under age 20 segments to the right, and the immigration surge generation in the bulge to the left, peaking at ages 35 to 44. Slightly higher, the relatively large post World War II Baby Boom generation is also visible in the bulge to the right, with the peak of the California-born segment at ages 45 to 54 and those from other states five years higher.

1990

This is quite a different portrait from observed for 1990. As shown in the top panel of Exhibit 7.1, the immigration surge generation can be seen in the midst of its growth, when it was newly arrived. At that time the foreign-born population was much younger on average than in 2010. Among the native-born, both segments of the Baby Boom generation were twenty years younger and their numbers were substantially larger than in 2010. By the latter date, the numbers had been whittled down by periods of
Exhibit 7.1: California Residents By Place of Birth in 1990, 2010, and 2030

Source: Census Bureau IPUMS, Pitkin Myers CDF 12 Generational Projections
out-migration, heavy in the 1990s and more moderate but still substantial after 2000.

Back in 1990 the beginning of the California baby boom is discernible in the youngest age segment. It is noteworthy that a fourth large generation is also visible in 1990, namely the migrants from other states who arrived during the 1950s. These residents can be seen in the bump at age 65-69 in the component that was born in other states. By 2010 this once prominent group was no longer visible in the age-nativity pyramid because of the cumulative impact of mortality as the cohort advanced in years.

2030

We can also trace all the cohorts forward in time to 2030, when they are 20 years older. The 2030 pyramid, on the bottom in Exhibit 7.1, shows them as climbing a ladder to a later stage in life. The Baby Boom and immigration surge generations will be older, with some shrinkage among the Boomers due to mortality. The homegrown, California baby boom generation will continue to mature, and its oldest members will near 40 years of age.

Since this pyramid is based on a projection, there is unavoidably some uncertainty about its exact shape. If immigration is higher than assumed in the projections, it would expand the foreign-born segment toward the left with more new arrivals, and if lower than projected would compact the segment toward the right. Similarly, any increase in fertility would expand the native-born segments to the right (but only in the recently born age groups). And any deviations from the assumed levels of domestic migration would have corresponding repercussions for shrinking California-born segments, if greater out-migration, or growing the Other-U.S.-born segments, if greater in-migration than currently assumed. However, barring large and unexpected shifts in the occurrence of migration and fertility, the main features and general shape of the 2030 population should resemble the pyramid in this figure.

It should be pointed out that one substantial change between 2010 and 2030 would be not affected by surprises in any of these areas. The projected spread at the top of the pyramid occupied by the old-old results from continued modest declines projected in mortality rates combined with growing cohort sizes. For almost a century even the largest changes in elderly mortality rates have occurred gradually, so any change large enough, and sudden enough, to substantially change the projected increase in the oldest population by 2030 would be highly unusual.

The Imprint of Different Histories of Settlement

Each of the major race-ethnic groups in California has a different history of residence in the state, and this is reflected in their unique age-nativity profiles. Pyramids projected for each in 2030 are shown in Exhibit 7.2.

Whites and Blacks, at the left, are predominantly native-born populations with relatively small foreign-born numbers evident on the left-hand side. (Note that the horizontal axes for Blacks and Asians and Pacific Islanders are stretched so that each unit represents a third as many people as in the two upper graphs, for Whites and Hispanics.) White and Black pyramids both show relatively little variation from old to young ages and both reveal the Baby Boom and California baby boom generations as bulges in the age structure. The pyramid for Whites appears slightly top heavy, indicating an older population on average, while that for Blacks is somewhat broader below the middle.

On the facing page, in the second half of Exhibit 7.2, we see projected population structures with large numbers of immigrants. The foreign-born shares are relatively and in absolute numbers much larger than for the Whites and Blacks, and especially prominent for Asians. At the bottom of these pyramids, at younger ages, larger native and California-born numbers push the pyramids rightward. Since the parents of the young people near the base of each pyramid are to be found higher in the same pyramid, this tilt from top left to lower right graphically depicts a generational transition.

For Hispanics, the younger, California-born generation, is projected to outnumber the older and predominantly foreign-born generation, but for Asians, the relative sizes of the generations are projected to be the reverse, a result of much smaller family sizes and lower fertility rates among Asians.
The pyramids certainly make plain the age structure and life-cycle that all hold in common. Each resident, no matter the birth place, is subject to the same aging and eventual mortality.

But there is another striking and significant commonality that is visible. Despite all the differences among the four race-ethnic pyramids projected for 2030, what stands out is the overwhelming dominance of the California-born shares at young ages. Concentrated as it will be among children and young
adults, the new homegrown majority will be a generation that shares a common heritage of birth and place.

With foresight, there is now an opportunity to nurture and strengthen the bond of this basic heritage through policies. It is hard to imagine that the identities defined by race and ancestral origin will rapidly fade. However, it is equally difficult to imagine that they will persist unmodified into the indefinite future. As they do fade, sooner or later, there is likely to be an opening for identities defined by birth and place to assume greater importance in people’s lives.
Endnotes

1. The terms Hispanic and Latino are used interchangeably in this report. The federal data system categorizes data most often by the term Hispanic, while public discussions in California more often uses Latino. This report uses both terms.

2. The 10-year increases and estimates of immigration are calculated from official Census counts, which may not account for all the residents actually present. If we take account of increases in population coverage between censuses, that alters the apparent growth and immigration and could imply that increases during the 1980-1990 decade were somewhat higher than shown and those in the following decade somewhat lower.

3. We noted the trend toward reduced immigration as early as 2001 and projected it to continue. See Myers and Pitkin 2001.

4. The historical annual series of California births is maintained by the Demographic Research Unit of the California Department of Finance. Retrieved from http://www.dof.ca.gov/research/demographic/reports/projections/births/

5. Sometimes people as young as 16 or 18 are assumed to be working age, but that is more appropriate in cases of farm labor or other manual occupations. People younger than 25 in our modern post-industrial economy are more often engaged in education, apprenticeships and part-time work. Those ages 18 to 24 should be considered of training age and not expected to bear the burden of supporting the elderly.


7. Myers and Pitkin (2001)

8. The smaller numbers at the top of each column show the numbers of foreign born who arrived in the first three (or six) months of the current year.

9. The majority of immigrants arrive as young adults or children, but some are older or even elderly. As time passes, the surviving members of the cohort on average are younger than those who die, and as a result the average age of the survivors is slightly reduced below what would be calculated by summing their average age at time of arrival and the subsequent amount of elapsed time.

10. Even though they are native-born, the children live in immigrant families. The youngest grow up to resemble the characteristics of native-born with native parents, yet they always retain this close bond with the immigrant generation.

11. The Generational Projections identify the second generation as U.S.-born children with foreign-born mothers, since the vital statistics fertility rates used in the CDF model are tracked by women’s nativity.

12. The model estimates (for 2010) and projections (to 2030 and 2040) are used as the basis for estimating the more expansive second generation population defined as the population with at least one foreign-born parent. The estimates shown here are based on the observed ratios of the second generation populations according to the two definitions in the Current Population Survey (2000-2002 average); these ratios are calculated and applied separately for each race and birth cohort group. For 2010, the resulting estimate is 21% (1.56 million) higher than the modeled-defined second generation population of 8.86 million. The second generation population for 1990 is estimated as fractions of the total native-born population in the various birth cohorts jointly defined by race and age. For older cohorts, these shares are taken from the 1970 Census (Integrated Public Use Microdata Sample data), which recorded parents’ nativity, and for younger cohorts, the shares are from the Current Population Survey (2000-2002 average).

13. This classification does not ignore the fact that adults older than 24 also may be engaged in job training or that those younger than 25 may already be working full-time in demanding jobs. Rather the age groupings are intended to capture the bulk of those engaged in the different sets of activities.

14. Johnson (2007) finds some variation for earlier years but his results for 2005 are very similar to these.

15. Due to the limitations of data for calibrating mortality rates, the CDF model does not reflect differences in mortality rates by nativity as it does for other components.

16. According to the 2004 Current Population Survey, fewer U.S. adults age 18 or older are classified as second generation under the strict two-parent rule (14.6%) than under the looser, one-parent definition (20.8%). The mother-based definition yields an intermediate prevalence of second generation status (17.6%).

17. The census data on immigrant arrivals provide a more inclusive count than arrivals recorded by the Office of Immigration Statistics. The latter source only includes legally admitted residents, omitting the unauthorized arrivals and also omitting temporary residents whose visa status is for purposes of education, temporary employment, or the like.

18. Net coverage of the population increased by approximately 2% in the 2000 Census relative to the 1990 Census. We estimate that the relative increase in coverage in California was slightly greater and accounted for over 700 thousand of the 4.1 million increase in total population recorded between the 1990 and 2000 Censuses.

19. Although it would be possible to obtain estimates of birthplace and exact year of entry by exact age from the 2010 ACS microdata, the sampling variability is much greater than the corresponding (cohort) estimate from the 2000 Census 5% microdata (PUMS). We therefore believe that the modeled updates of the age by birthplace by year of arrival distributions are more reliable than the corresponding direct detailed estimates from 2010 ACS. Observed differences between the simulation results and the Census may be explained by changes in coverage between the 2000 and 2010 Censuses.
References


Myers, Dowell and John Pitkin. 2001. “Demographic Futures for California,” Population Dynamics Group, School of Policy, Planning and Development, University of Southern California, University of Southern California.


Copies of all project reports are downloadable from the website of the Population Dynamics Research Group, Sol Price School of Public Policy:

http://www.usc.edu/schools/price/research/popdynamics

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